chotic individual. For this reason a lesser share of the student's time should be given to the study of the psychoses.

In practical fashion Doctor Allen is working toward added clinical training for nurses, interns, and postgraduates in the treatment of psychiatric cases. His own attitude of clear and sympathetic understanding of the factors at work in the psychoneuroses, and emotional insanities will go far toward solving the problems of medical attendant, family, and patient as well.

Doctor Allen briefly and accurately sums up the Freudian interpretation of the psychoneuroses as attempts at adjustment of complexes that have been submerged because painful and that gain partial expression in symbolic form. The prevalent opinion, according to Doctor Allen, is that emotionally toned complexes are probably at the bottom of many abnormal mental reactions.

Two other important points should be noted: first, that a clouding of consciousness is an elementary symptom in the symptomatic psychoses; and, second, that the symptoms will vary, depending upon the schizic or cyclic background of the patient's psychic pattern.

HENRY G. MEHRTENS, M. D. (Stanford University Medical School, San Francisco).—I have enjoyed every word of Doctor Allen's paper. It gives us a splendid summary of the manifold phases of the psychiatrist's work in a general hospital and his great usefulness to the institution as a whole. While the paper was written from work done in a municipal hospital, every word applies with equal force to the nonmunicipal hospital. Our experience with a psychiatric ward in Stanford Hospital has convinced us that the noncharity patient needs the service described by Doctor Allen even more than the patient in a city or county hospital. Every general hospital has within its walls many psychopathic cases and incipient psychoses. These patients are frequently a disturbing element in the hospital routine, when on general service. From their ranks come the attempted cases of suicide. At best, they seldom receive much benefit from the most conscientious effort directed toward their physical ailments.

These unpromising groups can frequently get the understanding necessary for their comfort and safety, as well as the possibility of a solution of their troubles, only in a psychopathic ward where an organization exists to care for their needs. The general hospital has the unique and invaluable position of being able to render aid to these patients before they or their families would consent to examination in a psychopathic hospital. Help can be given at a time when it is most effective. I hope that Doctor Allen's paper will so stimulate us that we shall never be satisfied until every good-sized general hospital is equipped to render psychiatric service of the same standard as that furnished by the medical and surgical services. Only thus can we feel that we are doing our full duty to the patients, and have advanced the cause of mental hygiene.

DOCTOR ALLEN (Closing).—I can only add a remark upon the difficulties which we in Los Angeles experienced in getting a building and in securing an adequate medical staff and nursing force.

As it is, the existing building, erected in 1914, is far from satisfactory. However, through improvements to this building and an enlarged and better organized medical staff, nursing and office force, secured through the efforts of Dr. Martin G. Carter, we are managing to handle a greatly increased material and to accomplish some useful results.

If the whole medical profession of California will stand behind the psychiatrists in an effort to obtain some very necessary modifications of the laws dealing with the psychopathic and the insane, there should be no difficulty in putting California in the front rank in the United States in the matter of the handling of these unfortunates.

ACUTE INTESTINAL OBSTRUCTION—ITS TREATMENT*

By W. B. HOLDEN, M. D.
Portland, Oregon

THE successful management of acute intestinal obstruction depends as much on the treatment before operation as on the operation itself. The general practitioner usually sees the patient before the surgeon. He is called during the first few hours of the obstruction. The suffering is so intense that the patient disregards the various cults and isms and early seeks medical aid. The usual surgical mortality of 30 per cent or more can be lowered to 5 or 10 per cent only by early operation, i. e., the first twelve or twenty-four hours.

THE DANGERS OF MORPHIN

Early operation is prevented by morphin. Morphin obscures the symptoms. The patient is made perfectly comfortable and no one can more than guess at the diagnosis. Obvious, pathognomonic symptoms are entirely concealed. The innocent-looking hypodermic of morphin is responsible for the death of at least twenty-five of every hundred operative intestinal obstruction cases. It seems difficult for the physician to sense the dangers of morphin in abdominal pathology. It is the duty of the surgeon to warn against its use to relieve abdominal pain. It is our opinion that each year in our land, more lives are destroyed by the hypodermic than by automobile accidents. Pain is not in itself deadly, but its relief by morphin often results in death. Patients will endure severe pain for long periods of time and survive—for example in facial neuralgia, sciatica, tabes, arthritis and labor. Relieve the pain of acute intestinal obstruction by morphin for forty-eight hours and the patient will likely forfeit his life.

We are told that we must not give morphin for abdominal pain until we are positive of the diagnosis. Can we be certain that the cause of the pain is not intestinal obstruction? Two of our thirty fatal cases had been given morphin for two days under the diagnosis of gall stones. We shall look in vain for improvement in our death rate until the entire profession discards the hypodermic as a remedial agent in all acute surgical abdominal diseases. We do not need better surgical operations so much as less preoperative morphin. Any surgeon in any community by repeated and continuous admonitions against the use of morphin in abdominal pain can reduce his surgical mortality in referred obstruction cases 50 per cent. In 1925, we had twenty-three referred obstruction cases with three deaths (13 per cent). The mortality of all referred cases previous to 1925 was 27 per cent. The difference represents the results of a campaign of education with my colleagues against the hypodermic in colic.

IMPORTANCE OF EARLY OPERATION

The importance of an early operation is the one point on which all writers on this subject

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agree. With no morphine, most cases would be operated early. Intestinal obstruction operated the first twelve or twenty-four hours will give a mortality of 5 to 10 per cent. Those operated the second day will give a mortality of probably 20 to 30 per cent, operated on the third day approximately 50 to 60 per cent, a small percentage will survive operation on the fourth day and practically all will die if operated on as late as the fifth day. An operation by a novice in surgery on the first day may have a better outcome than one done by a master surgeon on the third or fourth day. There is no medical treatment for intestinal obstruction. Cathartics do damage and nothing but damage.

SURGICAL PROCEDURES

Having established the desirability of an early operation, our plan of management is as follows:

General anesthesia—gas and ether. A long midline incision, extending from the pubis to well above the navel is necessary to readily find the obstruction. Contrary to the usual teaching, we practice complete evisceration. The operating room should be warm—80 degrees or above. The intestines are kept warm by covering with large hot saline napkins, which are renewed as they become cool. Traction on the mesentery should be avoided. The obstruction is readily found and relieved. Constricting bands of adhesions are severed, intussusceptions and internal hernias reduced, a volvulus untwisted, or an impacted gall stone removed. Gangrenous bowel will require resection, though it may be wise to leave both proximal and distal ends of the bowel protruding through the wound and unite them subsequently. Obstructing cancer cases should be done in two stages. The carcinoma is removed at the second operation. Large masses of tangled, adherent, nonstrangulated bowel may be best handled by no effort to break up the adhesions, but short-circuited by an entero-enterostomy. We have never resorted to jejunostomy in mechanical ileus. However, we have used it in paralytic ileus.

The entire bowel is emptied from the duodenum to the point of obstruction. This may be done before or after relieving the obstruction. There are conflicting experimental conclusions regarding the toxicity of the imprisoned bowel contents. Clinically, patients do very much better if the imprisoned contents are removed. This is done as follows:

A short distance below the obstruction, a linen purse-string suture is placed longitudinally in the bowel. The intestine is opened and the flanged end of a large test tube is inserted and the purse string suture drawn tight, the first tie of the knot being clamped with a hemostat. The closed end of the test tube has been previously removed and fitted with a piece of rubber tubing about two feet long. The operator's hands are well anointed with sterile vaselin. Beginning as near the duodenum as possible, the entire intestinal tract is gently and rapidly pulled through the surgeon's fingers by the assistant. Care must be taken not to make traction on the mesentery. The distal end of the rubber tube connected with the test tube is held by a nurse, while the intestinal contents pour into a basin. Formerly, we had a much longer rubber tube, reaching to the floor. Frequently siphonage sucked the intestinal wall into the test tube completely blocking the tube. A short tube held nearly horizontally prevents this trouble. Occasionally, if there are many seeds, corn or barium in the intestine, the rubber tube may become clogged. The rubber tube may then be removed and the test tube can be cleaned with a curet or gall stone scoop. The test tube has the advantage of simplicity and is easy to obtain. After stripping the intestines once and occasionally twice, the tube is easily removed by unclamping the hemostat on the purse-string suture and loosening the first tie of the knot. As the flanged end of the test tube slips out, the purse-string suture is tightened, thus closing the opening into the bowel. A second line of Lembert sutures finishes the repair of the enterostomy. The intestines are ribbon-like and closure of the abdomen can be done with dispatch. This entire step may be completed in five minutes. The operation should not be long. Obstructed patients do not stand long operations. This method is employed in all cases of obstruction, except strangulated external hernias.

The abdominal wall is closed without drainage. A few cases of gas bacillus infection in the wall have been reported. The writer has been spared that experience. It would seem that this complication is no more likely to occur than after any other intestinal operation.

Gastric lavage is used before operation and for postoperative vomiting. Before using the above-described method of emptying the bowel, postoperative vomiting was distressing. Often gastric lavage was necessary every few hours for several days. Now, it is rare to use the lavage at all. In fact, the convalescence is as smooth as after an appendectomy.

Proctoclysis, normal salt solution, is routine. Hypertonic salt solution (3 per cent) subcutaneously has been used to combat the sodium chlorid deficiency. No cathartic is used. The intestinal walls have been overdistended by the obstruction. Rest is indicated. No food is allowed for two or three days. The bowels will generally move spontaneously by the fourth day. If not, an enema may be given on the fifth day.

Our experience is based on the following cases:

	Cases	Died	Per cent Died
Cancer	22	7	32
Strangulated hernia (all varieties)	39	6	16
Old postoperative adhesions	62	13	21
New postoperative adhesions	11	0	0
Intussusception	15	2	13
Volvulus	12	1	8
Miscellaneous	10	1	10
	171	30	17½
Referred cases	115	27	23½
Not referred cases	56	3	5½

None of the fifty-six cases in our own practice received any morphin or cathartics. Many of the

115 referred cases had been given both morphin and cathartics before we saw them. No case of obstruction has been refused operation. The deaths include two that died after leaving the hospital, one gangrene of the lung and one abscess of the lung. In both, the abdominal pathology was completely relieved. Intestinal obstruction surgery is either delightful or distressing, depending on early or late operation.

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CHRONIC PYURIA IN CHILDREN*

REPORT OF CASES

By ALBERT M. MEADS, M. D.
Oakland

DISCUSSION *by W. W. Cross, M.D., Oakland; William E. Stevens, M.D., San Francisco; George G. Reinle, M.D., Oakland.*

FROM a urological point of view one of the important contributions that the pediatrician has made in establishing his specialty is the insistance upon a routine examination of urine in every case. I think that he will admit that in consultation, he many times makes his diagnosis, not by superior intelligence, but by superior care, and insistence upon a thorough examination, which includes an examination of a properly obtained specimen of urine. It is estimated that one per cent of the infants and children in his practice will be found to have pyuria. The presence of pus is the commonest sign of urinary pathology, and may or may not be accompanied by other signs or symptoms.

A large percentage of the acute infections of the urinary tract clear up either spontaneously or under intelligent medical care; these are rarely seen by the urologist. A perceptible number, however, in spite of time, hygiene and medication become chronic, failing to improve at all, or recurring so frequently that the attending physician is at his wits' end. It is with this small group that this paper deals.

CHRONIC PYURIA OF ACUTE INFECTIOUS ORIGIN

Chronic pyuria in children can be classified under two main headings, namely, those that have begun as acute urinary infections without any apparent provoking cause, and those in which infection is secondary to changes in the urinary tract which favor stasis. Chronic pyuria, following an acute urinary infection, is usually secondary to an infection elsewhere and may begin acutely in the course of a tonsillitis, influenza, gastro-intestinal disturbance, et cetera. Often the lack of early treatment allows the disease to drag on into a chronic stage which may last for weeks or months with frequent acute exacerbations. It is surprising how this type of infection responds to treatment after the original focus of infection has been removed.

Cystoscopically very little is found except inflammatory changes similar to those found in the adult. The pelvic outline and the ureters are normal, save for the inflammatory dilatation.

CHRONIC PYURIA SECONDARY TO STASIS

The cases of chronic pyuria secondary to changes in the urinary tract which favor *urinary stasis,* make up a far *larger* group than is commonly supposed. This has been emphasized by the several excellent papers that have appeared within the last few years. This obstructive type usually remains silent until announced by an acute infection occurring above the point of obstruction either secondary to an acute infection elsewhere, or an infection of the urinary tract only. It runs a course at first not unlike the usually acute urinary infection but soon becomes chronic, rarely if ever clearing up spontaneously. Unfortunately too many of these cases are treated expectantly with medication only, so that in the intervening time between the onset and final diagnosis much damage is done to the kidneys. Conditions favoring stasis may be grouped under those that are acquired and those that are congenital. The most commonly acquired obstruction is secondary to traumatism or local infection which is followed by stricture of some type. The congenital type is seen largely in children, the incidence of congenital lesion of the urinary tract found at postmortem being from 1.5 to 2.5 per cent. This percentage should be higher because the majority of children with chronic urinary disturbances are neither cystoscoped nor autopsied.

CONGENITAL ANOMALIES FAVORING STASIS

Anomalous lesions, so common in the genito-urinary system, are found most frequently in the kidneys and ureters, although there is no portion of the urinary tract that is exempt. The kidneys and ureters, in the kaleidoscopic changes that take place during development, seem particularly apt to form figures that vary from the so-called normal. The classical kidneys, pelves and ureters of the anatomy are the exception rather than the rule. Eisendrath and Papin, in an exhaustive study of renal and ureteral anomalies have classified kidney anomalies under those of number, volume, form, location, median fusion, rotation, reduplication of the pelves and ureters, anomalies of the pelves and anomalies of the vessels. They have also classified ureter anomalies under those of caliber and form, the latter including congenital stricture, dilation, valves and spiral twists and kinks, all of these potential causes of stasis invite infection and are found only by a careful cystoscopic examination, usually after infection has taken place. The first indication of their presence in the majority of cases is pyuria.

Congenital anomalies of the urinary tract favoring stasis appear in two general zones, the upper, including the kidneys and ureters, and the lower, including the bladder neck and urethra. The upper zone is involved equally in the male

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